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<b>DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)</b>  <input checked="" type="checkbox"/> Declaration Submitted with Initial Filing      OR <input type="checkbox"/> Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (e)) required)	Attorney Docket Number	06211 USA
	First Named Inventor	Pham, et al.
	<b>COMPLETE IF KNOWN</b>	
	Application Number	/
	Filing Date	
	Group Art Unit	
	Examiner Name	

As a below named inventor, I hereby declare that:

My residence, mailing address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

Apparatus and Method for Production of Synthesis Gas Using Radiant and Convective Reforming

(Title of the Invention)

the specification of which

☒ is attached hereto

OR

☐ was filed on (MM/DD/YYYY) [ ] as United States Application Number or PCT International

Application Number [ ] and was amended on (MM/DD/YYYY) [ ] (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?	
				YES	NO
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto


[Page 1 of 2]

Burden Hour Statement: This form is estimated to take 21 minutes to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231

Please type a plus sign (+) inside this box → +

PTO/SB/01 (10-00)  
Approved for use through 10/31/2002. OMB 0651-0032  
U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE  
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## DECLARATION — Utility or Design Patent Application

Direct all correspondence to: <input checked="" type="checkbox"/> Customer Number or Bar Code Label				<input type="checkbox"/> Correspondence address below	
Name		<b>23543</b>			
Air Products and Chemicals, Inc.					
Address					
Address					
City		State		ZIP	
Country		Telephone		Fax	
<p>I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.</p>					
NAME OF SOLE OR FIRST INVENTOR :		<input type="checkbox"/> A petition has been filed for this unsigned inventor			
Given Name (first and middle [if any])		Family Name or Surname			
Hoanh Nang		Pham			
Inventor's Signature		<i>Hoanh Nang Pham</i>		Date <i>Jan 8, 2002</i>	
Residence: City		PA State		USA Country	
Allentown				USA	
Mailing Address		145 Lilac Drive			
Mailing Address					
City		State		ZIP	
Allentown		PA		18104	
				USA	
NAME OF SECOND INVENTOR:		<input type="checkbox"/> A petition has been filed for this unsigned inventor			
Given Name (first and middle [if any])		Family Name or Surname			
Shoou-I		Wang			
Inventor's Signature		<i>Shoou-I Wang</i>		Date <i>Jan. 8, 2002</i>	
Residence: City		PA State		USA Country	
Allentown				USA	
Mailing Address		4011 Winchester Road			
Mailing Address					
City		State		ZIP	
Allentown		PA		18104	
				USA	
<input checked="" type="checkbox"/> Additional inventors are being named on the <u>1</u> supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto.					


Please type a plus sign (+) inside this box → +

PTO/SB/02A (11-00)  
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<b>DECLARATION</b>	<b>ADDITIONAL INVENTOR(S)</b> <b>Supplemental Sheet</b> Page <u>1</u> of <u>1</u>
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<b>Name of Additional Joint Inventor, if any:</b>		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle [if any])		Family Name or Surname	
David Hon Sing		Ying	
Inventor's Signature		Date <u>8 Jan 2002</u>	
Residence: City Allentown	PA State	USA Country	USA Citizenship
Mailing Address 7022 Lehigh Court			
Mailing Address			
City Allentown	PA State	ZIP 18106	USA Country
<b>Name of Additional Joint Inventor, if any:</b>		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle [if any])		Family Name or Surname	
Kevin Boyle		Fogash	
Inventor's Signature		Date <u>11 Jun 2002</u>	
Residence: City Wescosville	PA State	USA Country	USA Citizenship
Mailing Address 1424 Dayspring Drive			
Mailing Address			
City Wescosville	PA State	ZIP 18106	USA Country
<b>Name of Additional Joint Inventor, if any:</b>		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle [if any])		Family Name or Surname	
Inventor's Signature		Date	
Residence: City	State	Country	Citizenship
Mailing Address			
Mailing Address			
City	State	ZIP	Country

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PTO/SB/81 (02-01)

Approved for use through 10/31/2002. OMB 0651-0035

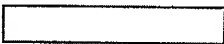
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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## POWER OF ATTORNEY OR AUTHORIZATION OF AGENT

Application Number	
Filing Date	
First Named Inventor	Pham, et al.
Title	Apparatus and Method for Production...
Group Art Unit	
Examiner Name	
Attorney Docket Number	06211 USA

I hereby appoint:

☒ Practitioners at Customer Number 

OR

☐ Practitioner(s) named below:



**23543**

Air Products and Chemicals, Inc.

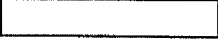
Name	Registration Number

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please change the correspondence address for the above-identified application to:

☐ The above-mentioned Customer Number.

OR

☐ Practitioners at Customer Number 

OR

Place Customer  
Number Bar Code  
Label here

☐ Firm or  
Individual Name

Address

Address

City

State

Zip

Country

Telephone

Fax

I am the:

☐ Applicant/Inventor:

☒ Assignee of record of the entire interest. See 37 CFR 3.71.

Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).

**SIGNATURE of Applicant or Assignee of Record**

Name

William F. Marsh

Signature

Date

January 14, 2002

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.

☒ \*Total of 1 forms are submitted.

Burden Hour Statement: This form is estimated to take 3 minutes to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

**STATEMENT UNDER 37 CFR 3.73(b)**

Applicant/Patent Owner: Pham, et al.

Application No./Patent No.: \_\_\_\_\_ Filed/Issue Date: \_\_\_\_\_

Entitled: Apparatus and Method for Production of Synthesis Gas Using Radiant and Convective . . .

Air Products and Chemicals, Inc., a corporation  
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest; or  
2. ☐ an assignee of less than the entire right, title and interest.  
The extent (by, percentage) of its ownership interest is \_\_\_\_\_ %

in the patent application/patent identified above by virtue of either:

- A. ☒ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

OR

- B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.  
2. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.  
3. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet.

- ☐ Copies of assignments or other documents in the chain of title are attached.

[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

January 14, 2002  
Date

William F. Marsh

Typed or printed name

[Signature]

Signature

Assistant General Counsel, Patents

Title



ASSIGNMENT

For value received, we, Hoanh Nang Pham; Shouu-I Wang; David Hon Sing Ying and Kevin Boyle Fogash, hereby sell, assign, and transfer to **AIR PRODUCTS AND CHEMICALS, INC.**, a corporation of the State of Delaware, having an office at 7201 Hamilton Boulevard, Allentown, PA 18195-1501, the entire right, title, and interest in and to the invention relating to

**APPARATUS AND METHOD FOR PRODUCTION OF SYNTHESIS  
GAS USING RADIANT AND CONVECTIVE REFORMING**

described in our application for Letters Patent of the United States (identified by Docket No. 06211 USA) executed of even date herewith, in and to all Letters Patent which may be issued upon said application, in and to any divisional or reissue applications based thereon, and in and to all Letters Patent upon said invention or improvements which may be granted in foreign countries. We hereby also assign and convey to said **AIR PRODUCTS AND CHEMICALS, INC.**, all the rights accruing to us by virtue of the International Convention for the Protection of Industrial Property (Art. 4), including the right to apply for and to have patents issued in its own name.

And we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and the Officials of the Patent Offices of all other countries to issue the Letters Patent of their respective countries to said **AIR PRODUCTS AND CHEMICALS, INC.**, as assignee of the entire right, title, and interest in and to the same.

And we hereby promise and agree to execute all papers and perform all acts necessary to secure to and vest in said **AIR PRODUCTS AND CHEMICALS, INC.**, its successors and assigns, the rights conveyed as herein set forth.

Hoanh Nang Pham (L.S.)  
Hoanh Nang Pham

Jan 8 2002

Date

David Hon Sing Ying (L.S.)  
David Hon Sing Ying

8 Jan 2002

Date

Shouu-I Wang (L.S.)  
Shouu-I Wang

Jan 8, 2002

Date

Kevin Boyle Fogash (L.S.)  
Kevin Boyle Fogash

11 Jan 2002

Date